AMENDMENTS TO THE CLAIMS

1. (currently amended) A fuel-concentration indicator incorporated in a fuel cell that operates by oxidizing a fuel solution, the fuel-concentration indicator comprising:

a volume of the fuel solution; and

a dye or dye mixture with a characteristic wavelength of light absorption or light emission, the characteristic wavelength ~~that changes~~ changing in response to changes in fuel concentration within the volume of the fuel solution.

2. (original) The fuel-concentration indicator of claim 1 wherein the volume of the fuel solution is contained within an anode reservoir containing a transparent window.

3. (original) The fuel-concentration indicator of claim 1 wherein the volume of the fuel solution is contained within a dye chamber containing a transparent window, the dye chamber in fluid contact with the anode reservoir and separated from the anode reservoir by a membrane permeable to the fuel solution but not permeable to the dye mixture.

4. (original) The fuel-concentration indicator of claim 1 wherein the volume of the fuel solution is contained within a dye chamber containing a transparent window, the dye chamber in fluid contact with the anode reservoir and separated from the anode reservoir by a fuel channel.

5. (original) The fuel-concentration indicator of claim 4 further including a membrane permeable to the fuel solution but not permeable to the dye mixture, the membrane between the fuel solution in the anode reservoir and the fuel solution in the dye chamber.

6. (original) The fuel-concentration indicator of claim 1 wherein the dye mixture comprises Acid Yellow 1 and Solvent Blue 37 and responds to methanol concentration within a methanol-water solution by changing color.

7. (original) The fuel-concentration indicator of claim 1 wherein the dye mixture comprises Acid Red 29 and Solvent Blue 37 and responds to methanol concentration within a methanol-water solution by changing color.

8. (original) The fuel-concentration indicator of claim 1, further comprising a photodiode and light-emitting device that illuminate the photodiode by transmitting light through the volume of fuel solution.

9. (original) The fuel-concentration indicator of claim 8, wherein the photodiode and light-emitting device control the release of the fuel solution.

10. (original) The fuel-concentration indicator of claim 1, further comprising a transparent window and a color indicator bar that displays a range of possible colors produced by the dye mixture in response to various fuel concentrations within the volume of fuel solution.

11. (original) The fuel-concentration indicator of claim 10, further comprising a fuel scale, aligned with the color indicator bar.

12. (currently amended) A method for determining the concentration of fuel in a fuel solution in a fuel cell having an anode reservoir, the method comprising:

adding a dye or dye combination to the fuel solution contained in the anode reservoir with a characteristic wavelength of light absorption or emission, the characteristic wavelength ~~that changes~~ changing in response to a change in fuel concentration within the anode reservoir; and

determining the concentration of fuel in the fuel solution by comparing the color of the fuel solution containing the added dye mixture to standard colors displayed on a color gradient.

13. (original) The method of claim 12 wherein the dye mixture comprises a combination of Acid Yellow 1 and Solvent Blue 37 and responds to methanol concentration in a methanol-water solution by changing color.

14. (original) The method of claim 12 wherein a dye mixture comprises a combination of Acid Red 29 and Solvent Blue 37 and responds to methanol concentration in a methanol-water solution by changing color.

15. (original) The method of claim 12 wherein determination of the concentration of fuel in the fuel solution is made by inspecting the fuel solution within the anode reservoir through a transparent window incorporated in the anode reservoir.

16. (original) The method of claim 12 wherein determination of the concentration of fuel in the fuel solution is made by inspecting the fuel solution within a dye chamber through a transparent window incorporated in the dye chamber, the dye chamber separated from the anode reservoir by a membrane permeable to the fuel solution but not permeable to the dye mixture.

17. (original) The method of claim 12, wherein determination of the concentration of the fuel in the fuel solution is made by inspecting the fuel solution within a dye chamber through a transparent window incorporated in the dye chamber, the dye chamber in fluid contact with the anode reservoir and separated from the anode reservoir by a fuel channel.

18. (original) The method of claim 17 further including a membrane permeable to the fuel solution but not permeable to the dye mixture, the membrane between the fuel solution in the anode reservoir and the fuel solution in the dye chamber.

19. (currently amended) A fuel-concentration indicator incorporated in a fuel cell that operates by oxidizing a fuel solution, the fuel-concentration indicator comprising:

a volume of the fuel solution; and

a chemical-indicator means responsive to fuel concentration within the volume of the fuel solution, the chemical-indicator means having a characteristic wavelength of light absorption or light emission, the characteristic wavelength ~~that changes~~ changing in response to changes of fuel concentration.